CENTERS FOR DISEASE CONTROL

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Current Trends

Death Investigation — United States, 1987

In the United States, medical examiners and coroners (ME/Cs) are responsible for investigating violent, suspicious, or unexpected deaths and deaths that are unattended by a physician. State laws specify the types of death that are investigated, the official(s) responsible for investigations, and the qualifications of the official. Depending on the jurisdiction, approximately 20% of all deaths fall under the purview of ME/Cs.

In 1981, the Office of Maternal and Child Health compiled information on the death investigation systems in the United States (*1*). To update this information, during fall 1987, CDC surveyed either the state ME's office, the state vital registrar's office, or the state ME/C's association. Current information was obtained for all states except Alaska, Arizona, Colorado, Iowa, Nevada, and Ohio. For these six states, information is from the 1981 report.

There are three basic types of death investigation systems (Table 1, Figure 1):

1. **Medical Examiner.** Nineteen states and the District of Columbia have a state chief ME who is responsible for investigating deaths for the entire state. The chief ME is usually appointed and must be a licensed physician with training in pathology. Deputy or county MEs, who are supervised by the chief ME, are appointed by either the chief ME or a county board of supervisors or commissioners. In Mississippi, county MEs are elected.

   Three states have county or district MEs but no state chief ME. Florida has 24 district MEs appointed by the governor. Arizona and Michigan have county MEs appointed by each county's board of supervisors.
2. **Coroner.** Twelve states have county or district coroners who are responsible for investigating deaths within each county. The coroner is elected, and there are usually no specific statutory requirements for training.
3. **Mixed Medical Examiner and Coroner.** Thirteen states have county or district death investigation systems, some of which are directed by MEs and some by coroners. In these states, no one person has supervisory responsibility for the state. However, three states—Arkansas, Kentucky, and Montana—have an appointed state chief ME and elected county coroners.

Death Investigations — Continued

The variations in these systems are illustrated by two states, Alabama and Connecticut. In Alabama, all deaths in the county where the deceased died without being attended by a legally qualified physician must be investigated by the county health officer or coroner (*2*). The county coroner is elected and is not required by statute to be trained in pathology or forensic science. In contrast, Connecticut has a state chief ME who must be "a doctor of medicine licensed to practice medicine in Connecticut and [who] shall have had a minimum of four years postgraduate training

TABLE 1. State death investigation systems, by type — United States, 1987

MEDICAL EXAMINER SYSTEMS (23 STATES)			
State Chief Medical Examiner (20)			
Deputies and/or County Medical Examiners appointed by Chief Medical Examiner (14)			
	Connecticut	New Mexico	Utah
	Delaware	North Carolina	Vermont
	District of Columbia	Oklahoma	Virginia
	Maine	Oregon	West Virginia
	Maryland	Rhode Island	
Deputies and/or County Medical Examiners appointed by Board of Supervisors/ County Commission (5)			
	Iowa	New Jersey	
	Massachusetts	Tennessee	
	New Hampshire		
County Medical Examiners elected (1)			
	Mississippi		
District Medical Examiners (1)			
	Florida		
County Medical Examiners (2)			
	Arizona	Michigan	
CORONER SYSTEMS (12)			
District Coroners (1)			
	Kansas		
County Coroners (11)			
	Alabama	Louisiana	Ohio
	Idaho	Nebraska	South Dakota
	Illinois	Nevada	Wyoming
	Indiana	North Dakota	
MIXED MEDICAL EXAMINER AND CORONER SYSTEMS (16)			
State Chief Medical Examiner and elected County Coroners (3)			
	Arkansas	Kentucky	Montana
District Medical Examiners/Coroners (1)			
	Alaska		
County Medical Examiners/Coroners (12)			
	California	Minnesota	South Carolina
	Colorado	Missouri	Texas
	Georgia	New York	Washington
	Hawaii	Pennsylvania	Wisconsin

Death Investigations — Continued

in pathology and such additional subsequent experience in forensic pathology as the commission [on medicolegal investigations] may determine" (*3*). The ME is responsible for investigating all deaths in the state that are as follows:

- Violent, whether apparently homicidal, suicidal, or accidental, including but not limited to deaths due to thermal, chemical, electrical, or radiational injury.
- Sudden or unexpected, not caused by readily recognizable disease.
- Under suspicious circumstances.
- Where the body is to be cremated, buried at sea, or otherwise disposed of so as to be thereafter unavailable for examination.
- Related to occupational disease or accident.
- Related to disease that might threaten public health (*4*).

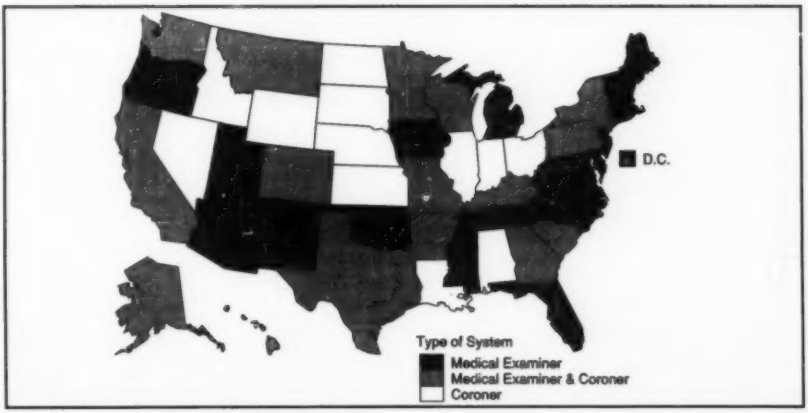
Reported by: Surveillance and Programs Br, Div of Environmental Hazards and Health Effects, Center for Environmental Health and Injury Control, CDC.

Editorial Note: Information collected by ME/Cs can be applied to many public health areas (*5–11*). For some problems, such as violent and sudden death, for which surveillance and evaluation information is difficult to obtain, ME/C data may be especially useful. For these reasons, CDC is working with ME/Cs and with organizations representing them to encourage collaboration and the exchange of information between ME/Cs and public health officials.

Because many states still have county-based systems, approximately 2000 separate death investigation jurisdictions exist in the United States. The results of this survey demonstrate the variability in the way deaths are investigated in different state and local jurisdictions. As an example, one component of the death investigation, the autopsy, varies by type of system (ME, C, or mixed) (*12*).

Information gathered in this survey has identified states that have centralized supervision of death investigations and, therefore, greater uniformity in investigation procedures and data. This information should allow each state to compare its system

FIGURE 1. Type of death investigation system, by state — United States, 1987



Death Investigations — Continued

with that of other states and to facilitate the exchange of ideas on improving death investigation systems.

A detailed description of each state's death investigation system (including the method of selection and qualifications of its ME/Cs and the types of deaths that can be investigated under state law) and a directory of county ME/Cs is available as *Medical Examiner and Coroner Jurisdictions in the United States* from the American Academy of Forensic Sciences, P.O. Box 669, Colorado Springs, CO 80901-0669; telephone (719) 636-1100. The cost is $30.

References

1. Health Services Administration. Death investigation: synopsis and analysis of laws (including sudden infant death syndrome [SIDS] legislation) in 56 US jurisdictions (1980). Washington, DC: US Department of Health and Human Services, Public Health Service, 1981. Final report, contract no. HSA-240-80-0027.
2. Alabama Code §22-9-71(1987).
3. Connecticut General Statute §19a-404 (1987).
4. Connecticut General Statute §19a-406 (1987).
5. National Center for Health Statistics. Vital statistics of the United States, 1986. Vol II. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988; DHHS publication no. (PHS)88-1114.
6. Goodman RA, Mercy JA, Rosenberg ML. Drug use and interpersonal violence: barbiturates detected in homicide victims. Am J Epidemiol 1986;124:851–5.
7. Kellermann AL, Reay DT. Protection or peril? An analysis of firearm-related deaths in the home. N Engl J Med 1986;314:1557–60.
8. Emerick SJ, Foster LR, Campbell DT. Risk factors for traumatic infant death in Oregon, 1973 to 1982. Pediatrics 1986;77:518–22.
9. MayoSmith MF, Hirsch PJ, Wodzinski SF, Schiffman FJ. Acute epiglottitis in adults: an eight-year experience in the state of Rhode Island. N Engl J Med 1986;314:1133–9.
10. Smith SM, Middaugh JP. Injuries associated with three-wheeled all-terrain vehicles, Alaska, 1983 and 1984. JAMA 1986;255:2454–8.
11. Kirschner RH, Eckner FAO, Baron RC. The cardiac pathology of sudden, unexplained nocturnal death in Southeast Asian refugees. JAMA 1986;256:2700–5.
12. CDC. Autopsy frequency—United States, 1980–1985. MMWR 1988;37:191–4.

Topics in Minority Health

Impact of Homicide on Years of Potential Life Lost in Michigan's Black Population

The public health impact of homicide varies among population groups and across geographic boundaries. Nationally, blacks have far higher homicide mortality rates and years of potential lost before age 65 (YPLL) than do other racial groups (*1*). In Michigan, to guide policy decisions and the allocation of resources for homicide prevention, the public health impact of this problem was defined for the state by estimating homicide-attributable YPLL for 1985 using standard CDC methodology (*2*).

When ranked by crude death rates, homicide (*International Classification of Diseases, Ninth Revision* [ICD-9] codes E960–978)* was the 11th leading cause of

*This report includes homicides classified as injuries by legal intervention, ICD-9 codes E970–977 (E978, injury by legal execution, is not applicable in Michigan), although previous reports on homicide (*1*) exclude these deaths.

YPLL — Continued

death in Michigan in 1985. However, it was the fourth leading cause of total YPLL (Table 1). Homicide was the leading cause of YPLL for black males and the third leading cause for black females in the state. Among males, the homicide-attributable YPLL rate for blacks was 16.2 times that for whites (Table 2). For females, the YPLL rate for blacks was 7.2 times that for whites. Blacks constitute only 14.4% of the population but accounted for 68.3% of the total homicide-attributable YPLL in Michigan in 1985.

TABLE 1. Leading causes* of years of potential life lost before age 65 (YPLL),† by race and sex — Michigan, 1985

Rank	Black male	Black female	White male	White female	Total population§
1	**Homicide**	Malignancy	Unint. injury	Malignancy	Unint. injury
	(19,041)	(5,792)	(49,378)	(30,303)	(80,910)
2	Unint. injury	Heart disease	Heart disease	Unint. injury	Malignancy
	(9,626)	(5,040)	(36,872)	(17,650)	(72,584)
3	Heart disease	**Homicide**	Malignancy	Heart disease	Heart disease
	(9,564)	**(4,445)**	(30,776)	(13,696)	(65,422)
4	Malignancy	Unint. injury	Suicide	Congenital ano.	**Homicide**
	(5,406)	(3,712)	(18,625)	(9,202)	**(34,395)**
5	Prematurity	Prematurity	Congenital ano.	Prematurity	Congenital ano.
	(4,637)	(2,838)	(11,546)	(5,612)	(25,768)
6	Liver disease	SIDS	Prematurity	SIDS	Suicide
	(3,610)	(1,806)	(7,740)	(3,700)	(25,613)
7	Congenital ano.	Congenital ano.	**Homicide**	Suicide	Prematurity
	(3,008)	(1,696)	**(7,240)**	(3,642)	(20,956)
8	SIDS	Liver disease	SIDS	**Homicide**	SIDS
	(2,938)	(1,625)	(6,764)	**(3,574)**	(15,459)
9	Suicide	Cerebrovascular	Liver disease	Cerebrovascular	Liver disease
	(2,909)	(1,552)	(4,662)	(3,208)	(12,152)
10	Cerebrovascular	Pneumonia/flu	Cerebrovascular	Liver disease	Cerebrovascular
	(1,800)	(947)	(3,541)	(2,155)	(10,216)

*Unint. injury = Unintentional injury; Congenital ano. = Congenital anomalies; SIDS = Sudden infant death syndrome; Cerebrovascular = Cerebrovascular disease; Pneumonia/flu = Pneumonia and influenza.
†Number of YPLL is in parentheses.
§Includes all races.

TABLE 2. Homicide-attributable years of potential life lost before age 65 (YPLL) and YPLL rates per 1000 population, by race and sex — Michigan, 1985

	Male		Female		Total	
Race	No. YPLL	YPLL rate	No. YPLL	YPLL rate	No. YPLL	YPLL rate
Black	19,041	34.1	4,445	7.2	23,486	20.0
White	7,240	2.1	3,574	1.0	10,814	1.6
Other	60	1.2	35	0.7	95	0.9

YPLL — Continued

Firearms caused the majority of Michigan homicides in 1985 (65.3%), while assault with cutting and piercing instruments was the second most common means of homicide (16.6%). Firearms accounted for 72.7% of the homicide-attributable YPLL among blacks (77.6% among black males and 51.5% among black females). For black victims, each firearm homicide resulted in an average of 34.9 YPLL, compared with 29.2 YPLL for homicides attributable to other causes.

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Editorial Note: Homicide-attributable YPLL in Michigan emphasize the urgent need to prevent premature mortality from homicide among black males and the importance of preventing injuries resulting from the use of firearms (*3*).

The homicide-attributable YPLL rate for black males in Michigan in 1985 was nearly twice that for black males nationally (34.1 per 1000 compared with 17.3 per 1000, respectively). Although blacks constitute 14% of Michigan's population and 12% of

(Continued on page 11)

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	1st Week Ending			Cumulative, 1st Week Ending		
	Jan. 7, 1989	Jan. 9, 1988	Median 1984-1988	Jan. 7, 1989	Jan. 9, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	465	U*	175	465	398	175
Aseptic meningitis	46	60	64	46	60	64
Encephalitis: Primary (arthropod-borne & unspec)	5	10	12	5	10	12
Post-infectious	1	1	1	1	1	1
Gonorrhea: Civilian	9,373	12,905	12,905	9,373	12,905	12,905
Military	126	156	240	126	156	240
Hepatitis: Type A	296	283	276	296	283	276
Type B	184	268	268	184	268	268
Non A, Non B	25	33	47	25	33	47
Unspecified	38	21	48	38	21	48
Legionellosis	5	21	7	5	21	7
Leprosy	5	-	1	5	-	1
Malaria	6	7	9	6	7	9
Measles: Total†	1	9	9	1	9	9
Indigenous	1	8	8	1	8	8
Imported	-	1	1	-	1	1
Meningococcal infections	25	42	41	25	42	41
Mumps	64	72	46	64	72	46
Pertussis	40	22	26	40	22	26
Rubella (German measles)	2	2	3	2	2	3
Syphilis (Primary & Secondary): Civilian	388	469	354	388	469	354
Military	6	2	2	6	2	2
Toxic Shock syndrome	3	3	5	3	3	5
Tuberculosis	215	123	141	215	123	141
Tularemia	1	-	-	1	-	-
Typhoid Fever	1	1	3	1	1	3
Typhus fever, tick-borne (RMSF)	2	-	-	2	-	-
Rabies, animal	40	31	40	40	31	40

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis (Ky. 1)	1
Botulism: Foodborne	-	Plague	-
Infant	-	Poliomyelitis, Paralytic	-
Other	-	Psittacosis (Tenn. 1)	1
Brucellosis	-	Rabies, human	-
Cholera	-	Tetanus (Mich. 1)	1
Congenital rubella syndrome	-	Trichinosis	-
Congenital syphilis, ages <1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending January 7, 1989 and January 9, 1988 (1st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	466	48	5	1	9,373	12,905	296	184	25	38	5	5
NEW ENGLAND	76	1	-	-	473	366	8	20	2	4	-	-
Maine	3	-	-	-	4	10	-	-	1	-	-	-
N.H.	1	-	-	-	-	14	-	-	-	-	-	-
Vt.	1	-	-	-	-	5	-	-	-	-	-	-
Mass.	69	1	-	-	153	100	8	15	1	3	-	-
R.I.	2	-	-	-	25	40	-	5	-	1	-	-
Conn.	-	-	-	-	291	197	-	-	-	-	-	-
MID. ATLANTIC	109	-	-	-	673	1,930	42	18	-	3	1	1
Upstate N.Y.	41	-	-	-	-	73	-	-	-	-	-	-
N.Y. City	-	-	-	-	-	1,050	-	1	-	1	-	-
N.J.	68	-	-	-	215	97	-	-	-	-	-	-
Pa.	-	-	-	-	458	710	42	17	-	2	1	1
E.N. CENTRAL	64	14	1	-	1,476	1,971	9	34	5	1	1	-
Ohio	-	5	-	-	-	657	4	15	1	-	1	-
Ind.	-	-	-	-	466	72	-	-	-	-	-	-
Ill.	64	-	-	-	480	529	-	-	-	-	-	-
Mich.	-	9	1	-	522	591	5	19	4	1	-	-
Wis.	-	-	-	-	8	122	-	-	-	-	-	-
W.N. CENTRAL	22	2	-	-	221	568	3	-	-	-	-	-
Minn.	-	-	-	-	47	96	-	-	-	-	-	-
Iowa	4	2	-	-	21	43	1	-	-	-	-	-
Mo.	17	-	-	-	149	347	-	-	-	-	-	-
N. Dak.	1	-	-	-	-	3	-	-	-	-	-	-
S. Dak.	-	-	-	-	4	8	-	-	-	-	-	-
Nebr.	-	-	-	-	-	24	-	-	-	-	-	-
Kans.	-	-	-	-	-	47	2	-	-	-	-	-
S. ATLANTIC	60	6	1	1	3,275	2,973	14	30	1	1	-	-
Del.	8	-	-	-	43	25	2	1	-	-	-	-
Md.	-	1	-	-	-	264	6	4	-	1	-	-
D.C.	11	-	-	-	200	138	-	-	-	-	-	-
Va.	-	-	-	-	183	368	-	-	-	-	-	-
W. Va.	1	-	1	-	65	25	-	-	-	-	-	-
N.C.	1	4	-	1	636	222	6	21	1	-	-	-
S.C.	12	1	-	-	699	237	-	4	-	-	-	-
Ga.	26	-	-	-	489	725	-	-	-	-	-	-
Fla.	1	-	-	-	960	969	-	-	-	-	-	-
E.S. CENTRAL	13	9	-	-	1,131	1,184	4	18	5	1	1	-
Ky.	5	1	-	-	82	44	2	6	-	-	1	-
Tenn.	-	4	-	-	300	235	-	-	-	-	-	-
Ala.	8	4	-	-	471	619	2	12	5	1	-	-
Miss.	-	-	-	-	278	286	-	-	-	-	-	-
W.S. CENTRAL	3	-	-	-	878	2,223	9	1	-	-	-	-
Ark.	3	-	-	-	-	99	-	-	-	-	-	-
La.	-	-	-	-	120	1,064	-	-	-	-	-	-
Okla.	-	-	-	-	142	107	9	1	-	-	-	-
Tex.	-	-	-	-	616	953	-	-	-	-	-	-
MOUNTAIN	25	1	-	-	80	335	20	7	1	2	-	-
Mont.	-	-	-	-	3	7	-	2	-	-	-	-
Idaho	-	-	-	-	7	7	3	1	-	-	-	-
Wyo.	1	-	-	-	1	-	-	-	-	-	-	-
Colo.	-	-	-	-	-	76	4	-	-	1	-	-
N. Mex.	-	-	-	-	19	44	4	-	-	-	-	-
Ariz.	2	1	-	-	6	84	6	4	-	1	-	-
Utah	7	-	-	-	7	12	-	-	-	-	-	-
Nev.	22	-	-	-	37	105	3	-	1	-	-	-
PACIFIC	93	13	3	-	1,166	1,355	187	56	11	26	2	4
Wash.	-	-	-	-	-	102	-	-	-	-	-	-
Oreg.	-	-	-	-	62	39	12	3	2	-	-	-
Calif.	93	13	1	-	1,075	1,186	138	51	9	20	2	4
Alaska	-	-	2	-	27	11	37	2	-	6	-	-
Hawaii	-	-	-	-	2	18	-	-	-	-	-	-
Guam	-	-	-	-	-	7	-	-	-	-	-	-
P.R.	-	4	-	-	-	11	-	2	-	-	-	-
V.I.	-	-	-	-	-	8	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	3	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending January 7, 1989 and January 9, 1988 (1st Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	6	1	1	-	-	9	25	64	64	40	40	22	2	2	2
NEW ENGLAND	-	-	-	-	-	-	2	2	2	6	6	1	-	-	-
Maine	-	-	-	-	-	-	1	-	-	2	2	1	-	-	-
N.H.	-	-	-	-	-	-	-	2	2	3	3	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Conn.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
MID. ATLANTIC	1	-	-	-	-	-	-	3	3	11	11	-	-	-	-
Upstate N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.Y. City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.J.	-	-	-	-	-	-	-	-	-	10	10	-	-	-	-
Pa.	1	-	-	-	-	-	-	3	3	1	1	-	-	-	-
E.N. CENTRAL	1	-	-	-	-	-	2	8	8	1	1	2	-	-	1
Ohio	1	-	-	-	-	-	1	8	8	1	1	-	-	-	-
Ind.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ill.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mich.	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-
Wis.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
W.N. CENTRAL	-	-	-	-	-	-	-	28	28	2	2	5	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-
Mo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	28	28	-	-	-	-	-	-
S. ATLANTIC	-	-	-	-	-	1	4	9	9	1	1	4	-	-	-
Del.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Md.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	7	7	1	1	1	-	-	-
W. Va.	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-
N.C.	-	-	-	-	-	1	2	1	1	-	-	2	-	-	-
S.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E.S. CENTRAL	-	-	-	-	-	-	5	6	6	2	2	-	-	-	-
Ky.	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-	-	6	6	-	-	-	-	-	-
Ala.	-	-	-	-	-	-	1	-	-	2	2	-	-	-	-
Miss.	-	-	-	-	-	-	-	N	N	-	-	-	-	-	-
W.S. CENTRAL	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
MOUNTAIN	-	1	1	-	-	4	1	1	1	1	1	1	1	1	-
Mont.	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Idaho	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	-	-	-	4	1	-	-	-	-	-	-	-	-
N. Mex.	-	-	-	-	-	-	-	N	N	-	-	-	-	-	-
Ariz.	-	1	1	-	-	-	-	-	-	1	1	1	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC	4	-	-	-	-	4	11	5	5	16	16	9	1	1	1
Wash.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oreg.	-	-	-	-	-	-	-	N	N	-	-	-	-	-	-
Calif.	4	-	-	-	-	4	10	5	5	16	16	2	1	1	1
Alaska	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE iii. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending January 7, 1989 and January 9, 1988 (1st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	388	469	3	215	123	1	1	2	40
NEW ENGLAND	12	17	-	2	-	-	-	-	-
Maine	-	1	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Mass.	12	11	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	-	-	-
Conn.	-	5	-	2	-	-	-	-	-
MID. ATLANTIC	59	98	1	83	53	1	1	-	10
Upstate N.Y.	-	-	-	-	11	-	-	-	-
N.Y. City	30	74	-	35	24	-	-	-	-
N.J.	29	2	-	39	15	-	-	-	-
Pa.	-	22	1	9	3	1	1	-	10
E.N. CENTRAL	13	-	-	13	26	-	-	-	1
Ohio	-	-	-	4	9	-	-	-	-
Ind.	2	-	-	1	-	-	-	-	-
Ill.	8	-	-	7	15	-	-	-	-
Mich.	3	-	-	-	-	-	-	-	-
Wis.	-	-	-	1	2	-	-	-	1
W.N. CENTRAL	1	1	1	2	5	-	-	-	-
Minn.	-	1	-	1	2	-	-	-	-
Iowa	1	-	-	1	1	-	-	-	-
Mo.	-	-	-	-	-	-	-	-	-
N. Dak.	-	-	-	-	1	-	-	-	-
S. Dak.	-	-	1	-	1	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	-	-
S. ATLANTIC	185	164	1	46	10	-	-	-	14
Del.	1	1	-	-	2	-	-	-	-
Md.	-	9	-	6	-	-	-	-	3
D.C.	18	-	-	4	1	-	-	-	-
Va.	7	15	-	11	-	-	-	-	7
W. Va.	-	-	-	1	1	-	-	-	-
N.C.	15	2	1	10	-	-	-	-	-
S.C.	4	-	-	14	2	-	-	-	2
Ga.	38	21	-	-	-	-	-	-	2
Fla.	102	116	-	-	4	-	-	-	-
E.S. CENTRAL	46	27	-	12	13	-	-	2	1
Ky.	-	-	-	5	-	-	-	2	1
Tenn.	-	-	-	-	-	-	-	-	-
Ala.	34	16	-	7	13	-	-	-	-
Miss.	12	11	-	-	-	-	-	-	-
W.S. CENTRAL	19	66	-	-	4	-	-	-	7
Ark.	-	-	-	-	-	-	-	-	1
La.	11	4	-	-	-	-	-	-	-
Okla.	-	1	-	-	4	-	-	-	1
Tex.	8	61	-	-	-	-	-	-	5
MOUNTAIN	3	3	-	-	2	-	-	-	1
Mont.	-	-	-	-	-	-	-	-	1
Idaho	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-
Colo.	-	3	-	-	2	-	-	-	-
N. Mex.	-	-	-	-	-	-	-	-	-
Ariz.	-	-	-	-	-	-	-	-	-
Utah	3	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-	-	-
PACIFIC	50	93	-	57	10	-	-	-	6
Wash.	-	4	-	-	5	-	-	-	-
Oreg.	3	3	-	-	4	-	-	-	-
Calif.	47	84	-	57	-	-	-	-	6
Alaska	-	-	-	-	-	-	-	-	-
Hawaii	-	2	-	-	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	15	-	-	-	-	-	-	-
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending January 7, 1989 (1st Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	724	494	149	45	19	17	54
Boston, Mass.	196	128	40	14	7	7	27
Bridgeport, Conn.	38	29	5	3	1	-	8
Cambridge, Mass.	28	22	6	-	-	-	2
Fall River, Mass.	26	17	8	-	-	1	-
Hartford, Conn.	87	52	20	7	5	3	1
Lowell, Mass.	29	23	4	2	-	-	1
Lynn, Mass.	19	14	5	-	-	-	-
New Bedford, Mass.	39	29	5	4	-	1	-
New Haven, Conn.	51	30	14	3	2	2	7
Providence, R.I.	26	15	9	1	-	1	-
Somerville, Mass.	9	7	-	2	-	-	-
Springfield, Mass.	54	40	9	3	1	1	3
Waterbury, Conn.	46	34	5	4	3	-	3
Worcester, Mass.	76	54	19	2	-	1	7
MID. ATLANTIC	2,974	1,931	582	301	73	76	158
Albany, N.Y.	45	33	10	1	1	-	-
Allentown, Pa.	20	17	3	-	-	-	-
Buffalo, N.Y.	68	43	16	4	2	3	9
Camden, N.J.	41	25	5	5	-	6	1
Elizabeth, N.J.	32	24	4	4	-	-	1
Erie, Pa.†	40	28	8	2	2	-	6
Jersey City, N.J.	52	27	15	9	-	1	2
N.Y. City, N.Y.	1,691	1,071	334	206	43	37	75
Newark, N.J.	56	24	10	8	7	7	2
Paterson, N.J.	45	25	15	3	1	1	2
Philadelphia, Pa.	399	255	88	29	16	12	19
Pittsburgh, Pa.†	77	52	22	3	-	-	6
Reading, Pa.	24	22	2	-	-	-	1
Rochester, N.Y.	118	91	14	8	1	4	17
Schenectady, N.Y.	45	36	7	1	-	1	2
Scranton, Pa.†	39	32	4	2	-	1	2
Syracuse, N.Y.	71	47	18	6	-	-	4
Trenton, N.J.	42	29	8	3	-	2	4
Utica, N.Y.	28	24	3	1	-	-	2
Yonkers, N.Y.	41	26	8	6	-	1	3
E.N. CENTRAL	2,420	1,599	487	191	62	81	120
Akron, Ohio	54	38	9	4	1	2	1
Canton, Ohio	30	23	6	1	-	-	1
Chicago, Ill§	564	362	125	45	10	22	16
Cincinnati, Ohio	95	71	15	5	1	3	11
Cleveland, Ohio	151	91	30	14	7	9	5
Columbus, Ohio	123	76	19	17	6	5	1
Dayton, Ohio	124	94	21	6	1	2	9
Detroit, Mich.	327	183	79	38	14	13	9
Evansville, Ind.	60	49	8	1	2	-	2
Fort Wayne, Ind.	76	58	13	2	3	-	5
Gary, Ind.§	30	16	9	5	-	-	2
Grand Rapids, Mich.	68	54	7	4	1	2	11
Indianapolis, Ind.	205	125	45	20	6	9	7
Madison, Wis.	36	30	3	3	-	-	4
Milwaukee, Wis.	157	109	32	7	4	5	8
Peoria, Ill.	58	34	18	4	1	1	6
Rockford, Ill.	47	35	9	-	2	1	7
South Bend, Ind.	38	27	6	1	-	4	3
Toledo, Ohio	107	77	17	10	2	1	7
Youngstown, Ohio	70	47	16	4	1	2	5
W.N. CENTRAL	750	520	148	45	14	23	29
Des Moines, Iowa	77	53	16	4	2	2	3
Duluth, Minn.	28	21	6	1	-	-	-
Kansas City, Kans.	41	22	10	5	3	1	2
Kansas City, Mo.	128	84	25	10	4	5	8
Lincoln, Nebr.	39	35	2	1	1	-	5
Minneapolis, Minn.	122	96	15	10	-	1	7
Omaha, Nebr.	81	51	23	4	-	3	2
St. Louis, Mo.	147	99	30	7	2	9	-
St. Paul, Minn.	54	42	7	1	2	2	1
Wichita, Kans.	33	17	14	2	-	-	1
S. ATLANTIC	1,031	627	201	106	58	37	40
Atlanta, Ga.	166	112	28	17	8	1	7
Baltimore, Md.	123	72	25	13	5	8	5
Charlotte, N.C.	77	48	15	9	3	2	6
Jacksonville, Fla.	108	59	13	9	21	6	3
Miami, Fla.	136	67	34	25	6	4	3
Norfolk, Va.	60	40	12	3	3	2	4
Richmond, Va.	60	40	16	2	1	1	3
Savannah, Ga.	60	38	13	5	-	4	-
St. Petersburg, Fla.	75	59	9	3	1	3	6
Tampa, Fla.	90	50	17	8	8	6	3
Washington, D.C.	55	26	16	11	2	-	-
Wilmington, Del.	21	16	3	1	-	-	-
E.S. CENTRAL	674	435	157	52	13	17	30
Birmingham, Ala.	101	59	28	11	1	2	1
Chattanooga, Tenn.	47	29	12	4	-	2	3
Knoxville, Tenn.	67	42	18	3	3	1	4
Louisville, Ky.	91	67	19	4	1	-	1
Memphis, Tenn.	177	116	34	14	4	9	15
Mobile, Ala.	62	41	16	4	1	-	2
Montgomery, Ala.	17	8	4	4	-	1	-
Nashville, Tenn.	112	73	26	8	3	2	4
W.S. CENTRAL	1,732	1,082	383	163	50	52	74
Austin, Tex.	72	45	11	9	2	5	3
Baton Rouge, La.	41	19	12	6	2	2	3
Corpus Christi, Tex.§	48	37	10	1	-	-	1
Dallas, Tex.	197	111	45	25	9	7	6
El Paso, Tex.	45	28	7	2	4	3	3
Fort Worth, Tex	86	52	21	8	-	5	3
Houston, Tex§	734	436	169	89	24	16	18
Little Rock, Ark.	60	37	16	4	-	2	1
New Orleans, La.	107	77	26	4	3	2	1
San Antonio, Tex.	186	128	39	7	5	7	21
Shreveport, La.	69	56	12	1	-	-	8
Tulsa, Okla.	87	61	15	7	1	3	6
MOUNTAIN	641	422	119	44	26	29	32
Albuquerque, N. Mex.	83	52	11	7	10	2	2
Colo. Springs, Colo.	31	17	8	1	1	4	3
Denver, Colo.	48	34	9	3	-	2	1
Las Vegas, Nev.	95	65	23	3	3	1	9
Ogden, Utah	19	15	3	1	-	-	1
Phoenix, Ariz.	152	89	29	19	4	11	3
Pueblo, Colo.§	23	20	2	1	-	-	2
Salt Lake City, Utah	55	34	9	5	3	4	3
Tucson, Ariz.	135	96	25	4	5	5	8
PACIFIC	1,825	1,219	325	164	61	48	140
Berkeley, Calif.	23	17	1	5	-	-	2
Fresno, Calif.	91	68	9	11	3	-	5
Glendale, Calif.	22	16	3	2	-	1	-
Honolulu, Hawaii	63	44	10	6	1	2	8
Long Beach, Calif.	96	61	21	9	1	4	16
Los Angeles Calif.	348	210	66	42	16	7	14
Oakland, Calif.	102	67	20	4	7	4	6
Pasadena, Calif.	25	19	5	-	-	1	1
Portland, Oreg.	126	90	19	9	4	4	9
Sacramento, Calif.	169	109	39	8	9	4	26
San Diego, Calif.	186	118	35	15	9	9	14
San Francisco, Calif.	163	96	33	28	2	4	10
San Jose, Calif.	195	139	31	16	4	5	17
Seattle, Wash.	120	94	14	5	5	2	1
Spokane, Wash.	41	32	6	2	-	1	6
Tacoma, Wash.	55	39	13	2	-	1	5
TOTAL	12,771††	8,329	2,561	1,111	376	381	677

*Mortality data in this table are voluntarily reported from 121 cities in the United states, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

YPLL — Continued

the nation's, the proportion of total homicide-attributable YPLL in Michigan involving blacks is 68% compared with 44% in the nation. These differences largely reflect the higher homicide rate for blacks in Michigan than for the U.S. black population. Black homicide victims are also slightly younger than white victims in Michigan; in 1985, they had an average of 33 YPLL per homicide death, compared with 31 for whites.

Examining descriptive data such as those presented here is important for public health agencies addressing homicide. In addition, analytic studies of potentially modifiable risk factors are needed. Because 67% of Michigan's homicides in 1985 occurred in the Detroit area, these data highlight the importance of implementing and evaluating prevention measures, such as the recently implemented handgun ordinance, in Detroit. At the state level, excess homicide has led to plans to integrate health department and police data bases for surveillance of homicide. These data may help define factors associated with excess homicide in Michigan.

References

1. CDC. Premature mortality due to homicides—United States, 1968–1985. MMWR 1988; 37:543–5.
2. CDC. Premature mortality in the United States: public health issues in the use of years of potential life lost. MMWR 1986;35(suppl 2S).
3. CDC. Premature mortality due to suicide and homicide—United States, 1984. MMWR 1987; 36:531–4.

Recommendations of the Immunization Practices Advisory Committee

Measles Prevention: Supplementary Statement

INTRODUCTION

Since measles vaccine was introduced in the United States in 1963, the reported incidence of measles has decreased 99%, and indigenous measles transmission has been eliminated from most of the country. However, the goal to eliminate measles by October 1982 has not been met. Between 1981 and 1987, a low of 1497 (1983) to a high of 6282 (1986) cases were reported annually (*1*).

Two major types of outbreaks have occurred recently in the United States: those among unvaccinated preschool-aged children, including children younger than the recommended age for routine vaccination (i.e., 15 months), and those among vaccinated school-aged children (*2*). Large outbreaks among unvaccinated preschool-aged children have occurred in several inner-city areas. In these outbreaks, up to 88% of cases in vaccine-eligible children 16 months to 4 years of age were unvaccinated; as many as 40% of all cases occurred in children <16 months of age. Surveys of immunization levels in areas where these outbreaks occurred indicate that only 49%–65% of 2-year-olds had received measles vaccine (*3*).

Many outbreaks have occurred among school-aged children in schools with vaccination levels above 98%. These outbreaks have occurred in all parts of the country. Attack rates in individual schools have been low (1%–5%), and the calculated vaccine efficacy has been high. Primary vaccine failures (i.e., the approximately

ACIP: Measles — Continued

2%–10% of vaccinees who fail to seroconvert after measles vaccination) have played a substantial role in transmission. In many of these outbreaks, children vaccinated at 12–14 months of age have had higher attack rates than those vaccinated at older ages (*4*).

In a few outbreaks (*5,6*), persons vaccinated in the more distant past, independent of age at vaccination, have been at increased risk for disease. However, no conclusive data indicate that waning vaccine-induced immunity itself has been a major problem.

EVALUATION OF THE CURRENT MEASLES ELIMINATION STRATEGY

The current measles elimination strategy calls for administration of one dose of measles vaccine at 15 months of age (*7*). A documented history of vaccination at or after 12 months of age, however, is considered appropriate vaccination. High immunization levels, along with careful surveillance and aggressive outbreak control, are the three essential elements of this strategy. The Immunization Practices Advisory Committee (ACIP) has periodically reviewed the current strategy and progress toward measles elimination (*7*). At a recent meeting, the ACIP again reviewed the epidemiology of measles in the United States as well as recommendations, made by a group of consultants convened by CDC in February 1988, for modification of the measles elimination strategy.

To increase vaccine coverage among preschool-aged children in inner-city areas, the ACIP considered it essential that research be conducted to determine ways to increase vaccine delivery. A variety of additions and/or changes in the current strategy were considered, including a routine two-dose measles vaccination schedule and a one-time mass revaccination for school-aged children. Two new strategies were recommended and are described below (Table 1).

NEW RECOMMENDATIONS

Changes in vaccination schedule in areas with recurrent measles transmission among preschool-aged children

To improve immunity levels in high-risk children <15 months of age, the ACIP recommends that a routine two-dose vaccination schedule for preschoolers be implemented in areas with recurrent measles transmission (i.e., counties with more than five reported cases among preschool-aged children during each of the last 5 years). If recurrent measles transmission is occurring in defined parts of a county, local officials may elect to implement the routine two-dose schedule selectively in

TABLE 1. New recommendations for measles vaccination

Areas with recurrent measles transmission*	
Two-dose schedule	
First dose:	Monovalent measles vaccine at 9 months of age or first visit thereafter
Second dose:	MMR at 15 months of age
If a routine two-dose schedule is impractical, then MMR should be given routinely at 12 months of age.	
Outbreaks in schools	
Revaccinate all persons who received their most recent vaccination before 1980. If this is impractical, then children vaccinated before 15 months of age should be revaccinated.	

*County reporting more than five cases of measles among preschool-aged children during each of the previous 5 years.

ACIP: Measles – Continued

those parts. Health authorities in other urban areas that have experienced recent outbreaks among unvaccinated preschool-aged children may also consider implementing this policy. The first dose of measles vaccine should be administered at age 9 months or at the first health-care contact thereafter. Infants vaccinated before their first birthday should receive a second dose at or about 15 months of age. Single-antigen (monovalent) measles vaccine should be used for infants <1 year of age, and measles, mumps, and rubella vaccine (MMR), for persons vaccinated on or after the first birthday. Although some data suggest that children who do not respond to the first dose administered at a young age may have an altered immune response when revaccinated at an older age (*8*), there are no data to suggest that such children are not protected from measles (*9*).

If resource constraints do not permit a routine two-dose schedule, an acceptable alternative is to lower the age for routine vaccination to 12 months in those areas using one dose of MMR. If children also need diphtheria and tetanus toxoids and pertussis vaccine (DTP) and oral polio vaccine (OPV), these vaccines can be administered simultaneously with measles vaccine or MMR.

Changes in outbreak-control strategies for school-based outbreaks

Because of the prominent role that persons with primary vaccine failure are playing in measles transmission, the ACIP recommends the institution of some form of revaccination in outbreaks that occur in junior or senior high schools, colleges, universities, or other secondary institutions. In an outbreak, the ACIP recommends that, in affected schools as well as unaffected schools at risk of measles transmission from students in affected schools, all students and their siblings who received their most recent dose of measles vaccine before 1980 should be revaccinated. This date was selected for several reasons: 1) this strategy will capture almost all students vaccinated between 12 and 14 months of age, a group known to be at increased risk of primary vaccine failure, since the recommended age for routine vaccination was changed from 12 to 15 months in 1976; 2) it may be easier to identify students by year of vaccination than by age at vaccination; and 3) in some outbreak investigations, students vaccinated before 1978–1980 have been found to be at increased risk for measles. This is not felt to be due to waning immunity but rather to a higher rate of primary vaccine failure in persons vaccinated before that time. This higher rate may be due to different reasons, including less than optimal vaccine storage and handling or to the greater lability of the measles vaccine manufactured before a new stabilizer was used in 1979. While the exact date has not been determined, 1980 is a conservative cutoff. If all students vaccinated before 1980 cannot be revaccinated, then persons vaccinated before 15 months of age should be targeted.

References

1. CDC. Summary of notifiable diseases—United States, 1987. MMWR 1988;36(54):53.
2. Markowitz LE, Preblud SR, Orenstein WA, et al. Patterns of transmission in measles outbreaks in the United States, 1985–1986. N Engl J Med 1989;320:75–81.
3. CDC. Measles—Dade County, Florida. MMWR 1987;36:45–8.
4. Orenstein WA, Markowitz L, Preblud SR, Hinman AR, Tomasi A, Bart KJ. Appropriate age for measles vaccination in the United States. Dev Biol Stand 1986;65:13–21.
5. Rullan JV, Pozo F, Gamble WB Jr, Jackson K, Parker RL. Measles in a highly vaccinated South Carolina school population [Abstract]. In: CDC. Proceedings of the 1987 EIS Conference. Atlanta: US Department of Health and Human Services, Public Health Service, 1987:24.
6. Hutchins SS, Markowitz LE, Mead P, et al. A selective measles revaccination policy during a school-based measles outbreak [Abstract]. In: CDC. Proceedings of the 1988 EIS Conference. Atlanta: US Department of Health and Human Services, Public Health Service, 1988:29.

ACIP: Measles — Continued

7. ACIP. Measles prevention. MMWR 1987;36:409–18,423–5.
8. Stetler HC, Orenstein WA, Bernier RH, et al. Impact of revaccinating children who initially received measles vaccine before 10 months of age. Pediatrics 1986;77:471–6.
9. Davis RM, Whitman ED, Orenstein WA, Preblud SR, Markowitz LE, Hinman AR. A persistent outbreak of measles despite appropriate prevention and control measures. Am J Epidemiol 1987;126:438–49.

Notices to Readers

Epidemiology in Action Course

CDC and Emory University will cosponsor a course designed for practicing state and local health department professionals. This course, "Epidemiology in Action," will be held at CDC May 15–26, 1989. It emphasizes the practical application of epidemiology to public health problems and will consist of lectures, workshops, classroom exercises (including actual epidemiologic problems), roundtable discussions, and an on-site community survey. For further information and/or an application form, contact: Philip S. Brachman, M.D., Emory University, Division of Public Health, 735 Gatewood Road, Atlanta, GA 30322; telephone (404) 727-0199.

Update: *Haemophilus influenzae* Type b Vaccine

On December 22, 1988, the Food and Drug Administration licensed an additional *Haemophilus* b Conjugate Vaccine for routine use in children ≥18 months of age. The manufacturer is expected to begin distribution of the *Haemophilus* b Conjugate Vaccine (Diphtheria CRM_{197} Protein Conjugate) within a few weeks. Recommendations of the Immunization Practices Advisory Committee for the use of *Haemophilus* b Conjugate Vaccine (Diphtheria Toxoid Conjugate) (*1*) are applicable to the new conjugate vaccine.

Reference

1. ACIP. Update: prevention of *Haemophilus influenzae* type b disease. MWMR 1988;37:13-6.

MMWR

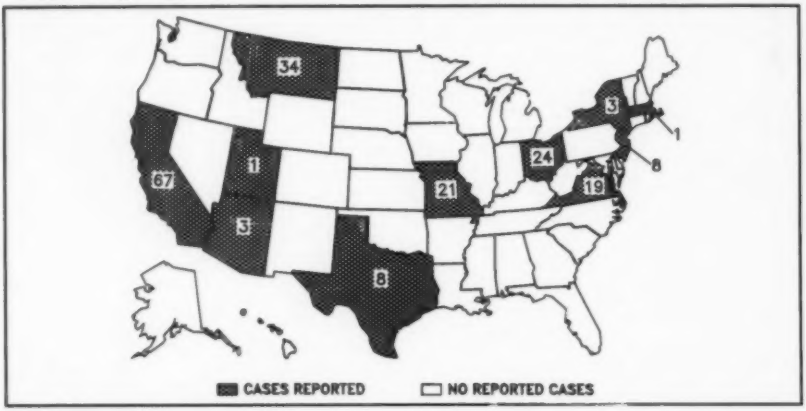
Michael B. Gregg, M.D., In Honor of 21 Years' Service as Editor, *MMWR*

In November 1988, Michael B. Gregg, M.D., concluded 21 years' service as Editor of *MMWR*. He continues at CDC as Acting Director of the Epidemiology Program Office. As Editor, Dr. Gregg strengthened *MMWR*'s dedication to communicating accurate and timely public health information to health-care and public health professionals. He oversaw the expansion of *MMWR* to accommodate the ever-widening scope of public health problems that concern national, state, local, and other health agencies and organizations. Additional benchmarks include the citation of *MMWR* articles in *Index Medicus* and increased accessibility of *MMWR* articles through reproduction by the Massachusetts Medical Society (*1*) and collaborative reprinting in the *Journal of the American Medical Association* (*2*). CDC and the Public Health Service are deeply indebted to Dr. Gregg for his dedication to public health practice and standards of excellence in public health reporting.

References

1. Relman AS. New distributor of *Morbidity and Mortality Weekly Report*. N Engl J Med 1983;308:452.
2. Lundberg GD. Getting the information out faster and some good news about *MMWR*. JAMA 1983;249:1483.

FIGURE I. Reported measles cases — United States, Weeks 49–52, 1988



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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